

Iowa Ag Review



Fall 2003, Vol. 9 No. 4

Center for Agricultural
and Rural Development

Geographical Indications, Property Rights, and Value-Added Agriculture

Bruce A. Babcock
babcock@iastate.edu
515-294-6785

What do Vidalia onions, Wisconsin cheese, and Kona coffee have that feta cheese, champagne, and cognac do not? The first three products have trademark protection for their brand names (in this case, through U.S. trademark law). The latter three have no brand name protection, but that could change. Protection would become available for the latter products if E.U. proposals to increase protection for products identified as originating from a particular geographic region—so-called Geographical Indications (GIs)—are adopted. The European Union proposes to (1) establish a register of GIs that would give protection to products across international boundaries; (2) extend the protections that are enjoyed by wines and spirits to food products; and (3) allow E.U. member countries to retrieve or “claw back” GIs currently being used by other countries. The first 41 products with GIs that the European Union wants to protect are shown in the accompanying box.

The E.U. proposal is strongly opposed by the United States, Australia, Canada, and other major food exporters. Furthermore, the United States and Australia believe that current E.U. domestic laws concerning GIs go too far. On October 2, the Dispute Settlement Body of the World Trade Organization agreed to look into European Community rules on trademarks and GIs at the request of the United States and Australia.

The U.S. position seems to contradict the encouragement U.S. pro-

ducers are getting from the U.S. Department of Agriculture to move away from production of homogeneous commodities toward production of value-added products that can increase returns. One feasible way to differentiate a product and add value to it is to brand it with the region from which it originated.

Alaska fishermen are trying to do this by joining together to produce Copper River Salmon and Castle Cape Reds. Wisconsin milk producers have joined to create Wisconsin Real Cheese and Wisconsin Style Havarti. And many state departments of agriculture have created certification programs for products that originate in their states. Examples include A Taste of Iowa, Idaho Preferred, Fresh from Florida, Get Real Get Maine, and Maryland Seafood—It's As Good as It Looks. Given that producers are showing increased interest in using GIs to create branded products, why has the United States opposed policy changes that would seem to strengthen their hand?

FINANCIAL INTERESTS IN GIs

The objective of the 1992 E.U. law governing protection of GIs is to “...add value to certain specific high-quality products from a demarcated geographical area. To promote, in a rural development context, the diversification of agricultural production” (see the full text at <http://europa.eu.int/scadplus/leg/en/lvb/l21097.htm>). Pascal Lamy, the E.U.'s chief trade negotiator, is quoted in a report by the American Farm Bureau as saying “I am convinced that the future of European agriculture lies not in quantity of exports but qual- ➤

The European Union's Wish List of Geographical Indicators

(prepared for the World Trade Organization
conference in Cancun)

Wines & spirits

Beaujolais
Bordeaux
Bourgogne
Chablis
Champagne
Chianti
Cognac
Grappa di Barolo, del
Piemonte, di Lombardia,
del Trentino, del Friuli, del
Veneto, dell'Alto Adige
Graves
Liebfrau(en)milch
Malaga
Marsala
Madeira
Médoc
Moselle
Ouzo
Porto
Rhin
Rioja
Saint-Emilion
Sauternes
Jerez, Xerez

Other products

Asiago
Azafrán de la Mancha
Comté
Feta
Fontina
Gorgonzola
Grana Padano
Jijona y Turrón de Alicante
Manchego
Mortadella Bologna
Mozzarella di Bufala Campana
Parmigiano Reggiano
Pecorino Romano
Prosciutto di Parma
Prosciutto di San Daniele
Prosciutto Toscano
Queijo São Jorge
Reblochon
Roquefort

ISSN 1080-2193

<http://www.card.iastate.edu>

IN THIS ISSUE

Geographical Indications, Property Rights, and Value- Added Agriculture	1
Meat Traceability in Japan	4
Agricultural Situation Spotlight	6
Agricultural Biotechnology and Trade: The Unresolved Issues	8
Recent CARD Publications	10

Iowa Ag Review is a quarterly newsletter published by the Center for Agricultural and Rural Development (CARD). This publication presents summarized results that emphasize the implications of ongoing agricultural policy analysis, analysis of the near-term agricultural situation, and discussion of agricultural policies currently under consideration.

<i>Editor</i>	<i>Editorial Committee</i>
Bruce A. Babcock	John Beghin
CARD Director	Trade and Agricultural
<i>Editorial Staff</i>	Policy Division Head
Sandra Clarke	Keith Heffernan
Managing Editor	CARD Assistant Director
Betty Hempe	Roxanne Clemens
Editorial Consultant	MATRIC Managing Director
Becky Olson	
Publication Design	

Contact Betty Hempe for a free subscription, publication information, and address changes at: *Iowa Ag Review*, CARD Publications, Iowa State University, 578 Heady Hall, Ames, IA 50011-1070; Phone: 515-294-7519; Fax: 515-294-6336; E-mail: card-iaagrev@iastate.edu; Web site: www.card.iastate.edu

Iowa State University

Iowa State University does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, sex, marital status, disability, or status as a U.S. Vietnam Era Veteran. Any persons having inquiries concerning this may contact the Director of Equal Opportunity and Diversity, 1350 Beardshear Hall, 515-294-7612.

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

ity, the quality of the European trademark. That is why we are fighting to stop appropriation of the image of our products and improve protection."

A quick glance at the list of GIs that the European Union wants to protect clearly shows why they see value in their proposal. Common foods, wines, and spirits that we consume would be given increased protection. For example, Korbel California Champagne at about \$12 per bottle would become Korbel California Sparkling Wine. In order to enjoy Champagne, you would have to buy a bottle of high-quality \$40 wine made from grapes produced in the Champagne region of France. Under the E.U. proposal, the demand for French champagne would be expected to increase, thereby increasing the region's wine profits at the expense of producers of California sparkling wines.

Another item on the list is feta, which is a well-known Greek curd cheese with a tradition dating back thousands of years. In 2002, the European Commission gave Greece a PDO (Protected Designation of Origin) for feta, concluding that "feta" is a not a generic word for any kind of tangy, salty curd cheese cured in a brine solution. Rather, the Commission ruled that cheese labeled as Feta cheese can only be produced in certain areas of Greece from goat's or sheep's milk.

To Americans, feta cheese is a style of cheese that is crumbly and salty and is usually used in Greek dishes. Most U.S.-consumed cheese that fits this description is made in Wisconsin from cow's milk. For example Mediterra Danish Feta is produced in Wisconsin by Arla Foods of New Jersey and Denmark. Arla is now forbidden from producing feta in Europe unless it does so in facilities in Greece. Should Wisconsin producers be allowed to use the term "feta" as a generic term to describe their cheese? Increased protection of GIs would suggest not.

Would the demand for this Wisconsin cheese disappear if it could not be called feta cheese?

POTENTIAL LOSSES FROM INCREASED PROPERTY RIGHTS PROTECTION

Companies outside the European Union that have built their reputation in part on products that originally came from Europe could suffer under the E.U. proposal if they were required to change the name of their products and if demand for the products were to decrease. Kraft and other companies generate millions of dollars annually from sales of inexpensive parmesan cheese, which takes its name from the world class Parmigiano Reggiano. Many of us were raised on Oscar Mayer bologna (also produced by Kraft), a version of its namesake, Mortadella Bologna, a sausage originally produced only in Bologna in the sixteenth century but now produced in northern and central Italy.

People consume Oscar Meyer bologna, Kraft parmesan cheese, and Korbel California champagne for a variety of reasons. The amount spent on advertising to maintain these brand names suggests that the companies believe that their product names are important. If names were changed because of adoption of the E.U. proposal, then presumably sales of these products would decrease, with resulting financial losses.

The reason the United States is against the 1992 E.U. law and against the current E.U. proposal is not difficult to understand: existing U.S. companies are threatened. But might there be some offsetting benefits to consumers or new companies from increasing protection for GIs?

POTENTIAL BENEFITS FROM INCREASED PROPERTY RIGHTS PROTECTION

The United States has been a forceful and consistent international advocate for increased protection of intellectual property rights. The fights against bootleg DVDs in China, pro-

duction of unlicensed generic drugs in Africa, or the protection of the rights of seed companies have been led by the United States. This should come as no surprise given that a large proportion of intellectual property is held by U.S. citizens and companies.

But protection of intellectual property also serves a greater societal goal of rewarding creativity and discovery. Lack of protection for intellectual property would decrease monetary incentives for people to engage in activities that lead to invention. Pharmaceutical companies would invest less in discovering new drugs. The recording industry would pay its artists less. And seed companies would invest less in new seed technologies.

Suppose the United States joined Europe's efforts to increase international protection for GIs in agricultural products. This policy change would immediately increase the incentive to create and register new products and brand names based on geographic origin. Regional foods could be marketed internationally with less risk that their niche would be overwhelmed by domestic competition. That is, protection of the GI would increase the incentive to create new brands because future competition would be limited.

There are numerous examples of how increased protection has led to increased profits for producers in Europe. Italian "Toscano" oil receives a 20 percent premium over commodity oil since the company registered its brand name in 1998. The market price for Bresse poultry in France is quadruple that of commodity poultry meat. Milk used to produce French Comte cheese sells for a 10 percent premium.

The key to maintaining these price premiums is control of quality and quantity. And the only way this control can be (legally) attained is by giving the owners of a product property rights over its brand name.

DOES EUROPE HAVE A MONOPOLY ON FINE FOODS?

Most of the benefits of increased protection for GIs are expected to flow primarily to European producers. After all, the wide variety of foods available across the many regions of Europe serves as the basis of much of Western cuisine. And Europe's food industry and farmers certainly would reap a large proportion of the initial benefits of increased protection for GIs. After all, it has been the European Union's policy since at least passage of the 1992 law to create a mechanism to reward its farmers for their investments in value-added food items. Thus, European farmers and companies are in a much better position to benefit from increased protection than U.S. farmers and companies.

But Europe does not have a monopoly on fine foods. For instance, high-quality, corn-fed beef slaughtered in plants throughout the U.S. Corn Belt is in high demand in Japan. The demand for non-commodity U.S. cheeses identified with particular regions is growing. International demand exists for products made from California citrus, nuts, and other fruit. Increased international protection for GIs could unleash the creativity of U.S. farmers and food companies over the next 30 years to meet new kinds of food products demanded by consumers all over the world.

A TURNING POINT FOR U.S. AGRICULTURE?

Rich-country policymakers are under increasing pressure to reduce taxpayer subsidies given to farmers. The current round of World Trade Organization negotiations has stalled because poor countries banded together with middle-income countries, such as China and Brazil, to block movement on an agreement until more progress is made on reducing U.S. and E.U. agricultural subsidies. Because farmer subsidies overwhelmingly focus on commodi-

ties, the current system of farm support encourages farmers and researchers to continue to focus their energies on finding ever-cheaper ways to produce more grain, oilseeds, and fiber.

Europe is attempting to wean its farmers from subsidies in two ways. The first is to increase the proportion of payments that are decoupled from production levels, much like the United States has done with its direct payments. The second approach is to create incentives for farmers to invest in higher-quality, value-added food products by bestowing greater property rights over the names of regional products. The aim is to create a more diversified, profit-oriented agriculture. Again, there is evidence that this approach is working. The Italian food industry in Tuscany and Emilia-Romagna is booming with new investments in value-added food items protected by GIs. Growth in the availability of noncommodity meats, poultry, and produce in France and Britain over the last five years is extraordinary. Clearly, the strengthening of property rights through GIs has helped producers meet the demand for high-quality food items.

With luck, world prosperity will continue. If it does, then so too will the demand for food items that make up a diversified, high-quality diet. One way to ensure that growth in demand for high-quality foods will benefit farmers is to give entrepreneurial farmers greater control over the quality and quantity of the food items they produce. Only then can they guard against imitators, who would overwhelm an otherwise profitable niche market. Increased protection of GIs is just the type of support needed by farmers who want to move away from commodities. If we want a more diverse and less subsidized agricultural sector, we might have something to learn from European agricultural policy. ♦

Meat Traceability in Japan

Roxanne Clemens
rclemens@iastate.edu
515-294-8842

A series of food safety crises, the discovery of bovine spongiform encephalopathy (BSE) in the domestic cattle herd, and a series of labeling scandals in Japan have shaken the trust of Japanese consumers in the safety of their food supply. The Japanese government has responded by implementing a series of new regulations and creating the new Food Safety Commission. The food industry has responded with assurance programs to reduce consumer anxiety over food safety and wholesomeness.

Many of these new regulations and assurance programs are based at least in part on traceability systems. So far, attempts to require traceability for imported meats have failed. Some industry experts contend that traceability will never be mandatory for imported meats. However, most experts agree that traceability will play an increasingly important role in the Japanese livestock and meat industries.

TRACEABILITY

In the livestock sector, traceability was implemented to track animal movement and identify cohorts in the event of animal diseases or food safety problems. In July 2002, the Law Relating to Special BSE Countermeasures was enacted. The law requires mandatory traceback for cattle from the feedlot to the packing plant. In a system regulated by the Japanese government, each cow is identified with an ear tag displaying an individual identification number. Producers must submit data on each animal's date of birth, sex, and breed; name and address of owner, location of fattening and date fattening commenced; and date of slaughter. These data are entered into the "family register" of the domestic herd.

In June 2003, Japan passed legislation requiring traceability from the farm through retail sale. Under the new law, processors, distributors, and retailers will be required to provide traceability information from the slaughterhouse to the retail outlet by December 1, 2004. The law will apply to beef muscle meats and will exclude offals, trimmings, ground beef, and processed products. Wholesalers and retailers can provide traceability

Japanese consumers tend to believe that if the person who produced a food product is willing to put his or her face and name on the product, then that product may be safer than a comparable product without such information.

information by individual animal or by lot numbers. Penalties for non-compliance will range from warnings to fines and making violators' names public. The government will provide assistance (low-interest loans and credits) to help companies cover the cost of the computer and labeling technologies required to implement the system.

Also in June 2003, Japan's Ministry of Agriculture, Forestry, and Fisheries announced a new Japan Agricultural Standard (JAS) program to certify the traceability of imported beef. To gain certification, exporters must be able to provide all the same information required under the Law Relating to Special BSE Countermeasures just described, plus the names of all feeds and pharmaceuticals used in producing the animal. The JAS certification is voluntary; domestic beef is also eligible for certification if its producers supply feed and pharmaceutical information. Beef certified under

the program is expected to appear on the market in 2004, and a similar system is being considered for pork.

CONSUMER ASSURANCE PROGRAMS

In the retail sector, traceability has emerged as a marketing tool to "make consumers feel good" about the meats they purchase. Japanese consumers have been critical of the government's role in handling the BSE crisis and other food-related problems. Supermarkets have seized the opportunity to fill the gap in consumer confidence about the government's ability to protect the safety and quality of the food supply. Traceability has been incorporated into assurance programs as a way to create trust, ease consumer anxiety, and assure consumers that "this" supermarket chain can provide the safest food. In a culture where loss of reputation is often of greater concern than is litigation, supermarkets are staking their reputations on being able to provide safe food. To supply to these supermarkets, producers must stake their reputations as well.

Japanese consumers tend to believe that if the person who produced a food product is willing to put his or her face and name on the product, then that product may be safer than a comparable product without such information. Japanese consumers equate such information with "knowing" the producer. Retailers are responding to this belief in a variety of ways.

The Aeon Company has developed one of the most comprehensive assurance systems for domestic Wagyu beef. Under this system, customers can enter a 10-digit code into a computer located in the meat sales area to obtain information about the beef they are purchasing (see Figure 1). The consumer can obtain a production record certificate that traces the meat back to the birth of the animal from which it was harvested, the BSE testing certificate, and a photograph of the



The Aeon Company uses a 10-digit code on retail labels to trace packages of domestic Wagyu beef back to the producer.

livestock producer(s). This information is also accessible from the customer's home computer.

The Aeon system was wildly popular at first, but few customers use the computer now that the novelty has worn off. However, just having the system in place seems to make customers feel more comfortable because the information is available if they want it. The Aeon Company provides a similar computer system in its produce department and plans to expand these systems to cover more products.

The Aeon Company also provides an assurance program for beef products imported from its Tasmanian (Australia) ranches. A posted Certificate of Assurance from the Australian Feedlot Association tells customers that the beef is produced under "management systems audited under the National Feedlot Accreditation Scheme" to ensure that the beef is "free of hormone growth promotants, therapeutic antibiotics, bone meal, and any genetically modified feed materials." Other point-of-sale information tells the customer that the beef is from Black Angus cattle fed for more than 200 days for greater tenderness and that the consumer is assured of purchasing "a fully anxiety-free" product.

The assurance program at Ito Yokado supermarkets includes a label with a photograph of the producer(s) on each package of meat. These labels appear on packages of beef, pork, chicken, and fro-

zen fish produced under aquaculture.

These assurance systems are not limited to the retail sector. One chain of family-style restaurants provides information about the origin and production methods of the domestic chicken, Chilean pork, U.S. beef, and Australian beef on its menus. Meat processors report that consumers are increasingly interested in knowing more about the meat used in processed products.

PRODUCT DIFFERENTIATION

To date, farm-to-fork traceability systems have been implemented for high-value items such as domestic Wagyu beef, for which consumers are already paying premiums. Results from consumer focus groups indicate that Japanese consumers will pay 20 percent more for domestic foods with specific safety assurances and production information. This response is generally supported by price differences at retail outlets.

The question that must be answered is whether imported products can achieve the same premiums, given that imported meats face consumer bias favoring domestic meats. Market experts believe that exporters with fully documentable traceability systems in place might do well in Japan because no one has captured this market. However, Japanese industry participants generally agree that Japanese buyers and consumers are unlikely to pay higher prices, especially for beef. Many importers believe that the key to obtaining premiums for imported meats will be in differentiating products from those of competitors.

Providing meats for noncommodity niche markets may improve the competitiveness of imported meats, especially in high-value markets where quality and product attributes are key factors in purchasing decisions. For example, pork from U.S. animals produced without antibiotics and with non-genetically modi-

fied (GM) rations is being sold at a substantial premium to domestic product. Some Japanese importers expressed interest in purchasing noncommodity U.S. beef and pork, including antibiotic-free, non-hormone treated, produced without GM rations, and organic meat.

WHO WILL SUPPLY THE MEAT?

Quality has long been the key factor in exporting meat to Japan, but a product that instills trust has become at least equally important. Unfortunately, many consumer assurance programs blur the distinction between assurances that food is safe and science-based systems that enhance food safety. Japanese importers acknowledge the difficulty and cost of tracing meat cuts to individual animals and seem open to considering less extensive traceability systems. Importers also have expressed a willingness to consider alternative systems using high production and manufacturing standards scientifically linked to food safety. Documentation and the exporters' willingness to stand behind the product will be important to the success of alternative systems.

Although beef has been the main focus since BSE, many restaurants and retailers want consumer assurance programs for pork, and legislation requiring traceability is being considered for domestic pork. Japanese importers have begun initiatives with North American, Australian, and New Zealand beef suppliers and want to develop initiatives for pork as well. The goal of many importers will be to purchase meat from suppliers who can provide low-cost products with marketable assurance programs, many of which will require some degree of traceability. In the short to medium term, the bulk of Japanese imports will continue to be dominated by commodity products, but demand for higher-value, differentiated products for the retail and hotel/restaurant/institution sectors will increasingly supplant demand for commodity meats in Japan. ♦

Agricultural Situation Spotlight

Editor's Note: Beginning with this issue, our Iowa's Agricultural Situation report will move beyond a synthesis of past USDA reports. Each feature, now called Agricultural Situation Spotlight, will provide in-depth analysis of an important topic in production agriculture.

Weak Spots in the Agricultural Safety Net

Chad E. Hart
chart@iastate.edu
515-294-9911

Congress added new programs under the 2002 farm bill to expand the safety net for agricultural producers. Countercyclical payments and marketing loan benefits compensate for low prices. Crop insurance and non-insured crop disaster assistance programs reduce risks from low yields. Direct payments provide income support. But the call for additional support to cover pricing and production emergencies has not subsided. Why?

While some of the calls for disaster assistance have centered on devastating crop losses (mainly from drought), others have called for compensation for shallow losses (partial crop losses). Why might farmers request assistance to cover shallow losses? An examination of returns under the new farm bill is revealing.

NET RETURNS UNDER VARIOUS SCENARIOS

One way to examine the ability of current farm programs to deal with a variety of production and pricing scenarios is to calculate the net returns to an example farm over many different price and yield combinations. Consider, for example, an Iowa corn farm that has been taken through 5,000 price and yield simulations. Table 1 shows the assumed settings on the farm for the direct, countercyclical, and crop insurance programs, along with assumptions on the per acre costs on the farm and the ability of the producer to use the

marketing loan program. The producer-paid insurance premium is the actual premium rate for a corn producer in Boone County, Iowa, with an actual production history (APH) yield of 148 bushels/acre for Revenue Assurance (with the harvest price option) of 65 percent coverage.

For each price and yield draw, we can calculate the net return per acre to the farm. Figure 1 shows the relationship between price and market receipts less variable costs. The natural hedge that Iowa corn farmers enjoy is nicely illustrated. Notice that as the market price increases, the average return remains at about \$150/acre. Higher yields tend to coincide with lower prices and vice versa. Negative returns are possible. But the average return across the prices is roughly the same.

Figure 2 shows the relationship between price and net returns after the inclusion of government payments. This net return is equal to the sum of market receipts, direct payments, countercyclical pay-

ments, net crop insurance payments, and marketing loan benefits less variable costs. What does Figure 2 teach us about the effects of the government payments?

GOVERNMENT PROGRAMS: GRAPHING THE EFFECTS

First, government programs remove the possibility of not covering variable costs. In one sense, government payments have largely taken the risk out of farming. Second, the marketing loan and countercyclical payment programs provide a great deal of support at low prices (lifting the points on the left side of the graph). Third, revenue insurance coverage provides income support in cases of low yields (lifting the points on the right side of the graph) and low prices (providing additional lift on the left side).

Fourth, the combination of programs creates a "V"-shaped floor for net returns. It is this floor (and particularly the bottom of the V) that illustrates the idea of a shallow loss. These points have prices between \$2.00 and \$2.60 per bushel and yields between 70 to 100 bushels per acre. At these points, market receipts are somewhat below average, and all of the government program payments are small or nonexistent.

The critical point for this farm is a price of \$2.32 per bushel and a yield of 86 bushels per acre. This combination results in the lowest

TABLE 1. FARM AVERAGES AND GOVERNMENT PROGRAM SETTINGS

Variable	
	(bushels/acre)
Direct payment yield	103
Countercyclical payment yield	120
APH yield	148
	(dollars/bushel)
National loan rate	1.98
Direct payment rate	0.28
Target price	2.60
	(dollars/acre)
Variable costs per acre	176.83
Producer-paid insurance premium	3.96



FIGURE 1. MARKET RECEIPTS LESS VARIABLE COSTS

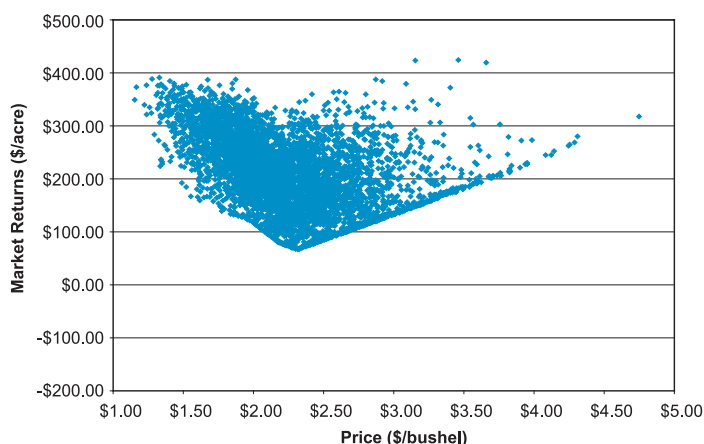


FIGURE 2. NET RETURNS

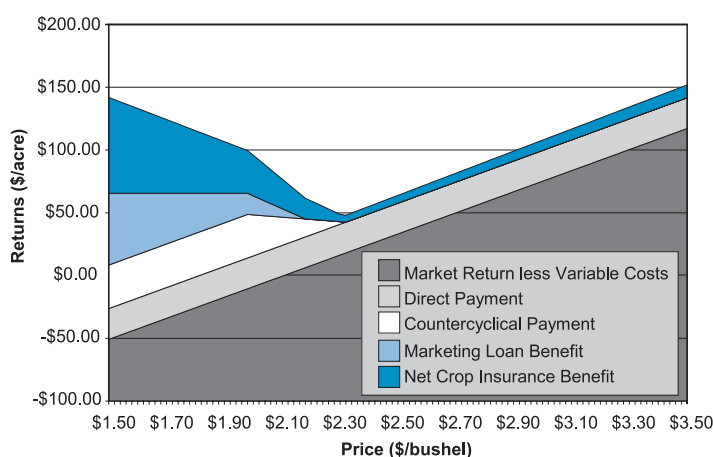


FIGURE 3. BREAKDOWN OF NET RETURNS FOR AN 84 BUSHEL PER ACRE YIELD

net returns, as prices are fairly low but still high enough to prevent any marketing loan and countercyclical payments and yields are low but again high enough to prevent most crop insurance payments. Any movement of prices and/or yields away from these points results in higher net returns. The critical point juncture changes with the type and coverage level of the crop insurance on the farm. For revenue insurance products with harvest price options, the critical point yield is equal to the farm's APH yield times the coverage level. For yield insurance products and farms with no crop insurance, the critical point yield is zero. The critical point price level depends on the county loan rate for the farm.

Figure 3 shows how this pattern arises. Tracking the various components of net returns over a range of prices for a given yield (84 bushels per acre) shows the impact of each of the programs and the market. The dark gray area represents the returns from market receipts less variable costs. It takes prices over \$2.10 per bushel for market receipts to cover variable costs. The light gray shows the direct payment. For this example, direct payments provide roughly \$25 per acre in support. The white area represents countercyclical payments. These payments are maximized at prices below \$1.98 per bushel and are equal to zero at prices above \$2.31 per bushel. The light blue represents the returns from the marketing loan program. Marketing loan program returns increase with lower prices. The dark blue illustrates the returns from crop insurance—in this case, Revenue Assurance with the harvest price option. Given the set-up, a yield of 84 bushels per acre is just low enough to trigger crop insurance payments at any price. The harvest price option allows crop insurance payments to increase at lower prices. As Figure 3 shows, the combination of returns is the lowest at prices around \$2.32 per bushel.

SHALLOW LOSSES TAKE THE HARDEST HIT

Similar patterns emerge when soybean markets are plotted. Prices near \$5.35 per bushel result in the lowest returns. The season-average prices for Iowa corn and soybeans in 2002 were \$2.25 and \$5.40 per bushel. So returns from government programs were low and those farmers who suffered shallow yield losses were the hardest hit in returns. The situation for 2003 looks similar for corn. Current new-crop December corn futures prices are in the \$2.25–\$2.30 range. Thus, those farmers who suffer shallow yield losses again this year due to the dry conditions throughout the summer could face a second year of limited returns, in which any other combination of prices and yields would have left them better off. ♦

Iowa commodity prices located on page 11

Agricultural Biotechnology and Trade: The Unresolved Issues

GianCarlo Moschini

moschini@iastate.edu

515-294-5761

To observers contemplating the failure of the Cancun ministerial meeting of the World Trade Organization (WTO) in September 2003, the United States and the European Union appeared to stand on the same side of the disagreement that stalled efforts to advance the Doha Round of multilateral trade liberalization. Poor countries wanted real reduction in the widespread agricultural subsidies that depress world prices in commodities that are critical to development. The United States and the European Union, on the other hand, insisted on a more comprehensive approach to liberalization, including pushing the WTO into new areas (such as rationalization of inefficient and corrupt custom procedures). Neither side could agree with the other. But, whereas at Cancun rich countries found a common stance vis-à-vis the demands of developing countries, the United States and the European Union remain on a collision course when it comes to agricultural trade because of the enduring and growing problems associated with the regulation of genetically modified (GM) products.

THE MAKINGS OF A TRADE DISPUTE

The advent of biotechnology in agriculture has, to date, displayed a perplexing, dual nature. On the one hand, we have witnessed a remarkably speedy adoption of some extremely innovative products, such as herbicide-resistant soybeans and cotton, and insect-resistant corn and cotton. In the United States, for example, the share of transgenic crops in the latest harvest amounts to 81 percent for soybeans, 73 percent for cotton, and 40 percent for corn. On the other hand, although GM crops



currently account for 145 million acres worldwide, large-scale adoption essentially has been limited to three countries: the United States, Argentina, and Canada. Adoption in other countries has been prevented by encroaching regulation that directly affects the diffusion of biotechnology products at various market stages.

The E.U. experience is emblematic in this setting. The earlier regulation of these new crops was similar to that of the United States, and 14 products were approved prior to 1998. But public opposition and consumer concerns drove the European Union to institute a de facto moratorium on new approvals pending an extensive re-examination of the regulatory framework for GM products. No new GM varieties have been approved since October 1998, and some E.U. countries (such as Austria, Luxembourg, and Italy) have taken steps to unilaterally ban, within their own national borders, products already approved in the European Union. Meanwhile, trade of affected commodities has shown early signs of problems to come. Access to the E.U. soybean market was not immediately threatened, because Roundup Ready soybeans (practically the only transgenic bean variety being grown) had

gained an earlier E.U. approval. But U.S. shipments of corn to the European Union have essentially ended because of the difficulty in ensuring the required purity. (There are a few GM varieties of corn that are grown in the United States that are not yet approved in the European Union.) This untenable situation has led to two recent, and distinct, developments of interest: the filing by the United States of a WTO complaint against the European Union in May 2003, and the completion by the European Union, in July 2003, of a new, complex, and far-reaching regulatory framework for GM products, centered on the requirements of labeling and traceability.

THE WTO CHALLENGE

In the WTO action, the United States (supported by Canada and Argentina) explicitly singled out the E.U. failure to approve new GM varieties in the last five years, claiming that this moratorium amounted to a WTO-illegal barrier to trade. The United States emphasized that the European Union's persistent resistance to move forward on GM products could not be justified by risk considerations. (For example, the European Union's own scientific assessment has ruled out health risk for the products considered thus far.) Technically, the action initiated was a "request for consultation," the first step in a WTO challenge. Not surprisingly, consultation has not led to a resolution of the issue, and in August 2003 the United States escalated the confrontation by moving to the next step, the request for a WTO panel to adjudicate the dispute. The panel's ruling is expected within the next 12 months, but considering that an appeal of the ruling is possible, and that countries have a reasonable period of time to comply with the final ruling, no resolution is expected for some time. In fact, it is

possible that this particular WTO action might be rendered moot by recent developments on the E.U. regulation of GM products.

THE NEW E.U. REGULATION OF GM PRODUCTS: LABELING AND TRACEABILITY

In July 2003, after years of gestation in the elaborate E.U. institutional structure, a comprehensive framework for GM products was finally adopted in the form of two new E.U. regulations (one regulating GM food and feed, the other dealing with traceability and labeling of GM organisms). Whereas some GM labeling requirements already existed in the European Union, the new rules are considerably stricter. All foods produced from GM ingredients must now be labeled, regardless of whether or not the final products contain DNA or proteins of GM origin. Such labels will have to state: "This product contains genetically modified organisms," or "This product has been produced from genetically modified [name of organism]." Furthermore, the new rules introduce (for the first time) labeling requirements for GM feed (for example, soybean meal and corn gluten feed produced from GM varieties will have to be labeled as such). To avoid carrying a GM label, a high level of purity is required: the tolerance level for the presence of "authorized" GM products is set at 0.9 percent. Some leeway is introduced for the accidental presence of other GM material, in the form of a 0.5 percent threshold level for GM events that are not yet approved by the European Union but for which the E.U. scientific assessment has been favorable (otherwise, the implicit requirement of zero tolerance applies). This mandatory labeling is supplemented by traceability requirements, meant to facilitate monitoring of unintended environmental effects and to help enforce accurate labeling. Operators at all marketing stages using or handling GM products are required to trans-

Whereas polls and studies have documented that a majority of E.U. consumers oppose GM food, it is not known just how much they are willing to pay for GM-free food. And pay they must, because avoiding the GM label will be costly.

mit information about the GM nature of the product and to retain these records for five years, so that a system is in place to identify who supplies GM products to whom, from "farm to fork."

The E.U. regulation also outlines a new, more centralized authorization procedure to govern future approvals of GM crops and products. The procedure features a scientific risk assessment prior to approval, carried out by the European Food Safety Authority. Authorizations are envisioned for a limited (but renewable) period of 10 years. Current E.U.-approved GM products remain eligible, but the limited 10-year approval period applies to them as well (retroactively, starting with the date of their first marketing). GM products that could be used as both food and feed should be approved for both or neither. The previous simplified procedure for approving GM products for marketing based on the notion of "substantial equivalence" is to be abandoned. These new regulations are expected to come into force sometime in 2004.

CONSUMERS AND PRODUCERS WILL SHARE IN THE COSTS OF REGULATION

On the positive side, the new E.U. regulations on GM products have the potential to unlock the five-year moratorium on new approvals, a key step toward normalizing the stance of GM products in the European

Union. Restarting approvals of GM products in the European Union may also render the outlook for the current WTO action against the European Union somewhat moot, given the focus of that challenge on the moratorium. But the new and stricter requirements of labeling and traceability are bound to have a number of serious market effects. Operators in the food industry are concerned that the new requirements will prove costly and ultimately unworkable. Labeling and traceability are likely to add considerable administrative and bureaucratic burden to transactions involving agricultural products and food, the end result of which is predicted to be more costly food to E.U. consumers, and lower prices for producers in exporting countries. Perhaps the biggest unknown is how E.U. consumers will react to food labeled as containing GM products. If, as some fear, E.U. consumers were to avoid buying food and feed labeled as GM, a substantial rebalancing of the supply lines of the E.U. food industry may result, with possible deep repercussions on world markets. In such a scenario, the United States may stand to lose a sizeable portion of its current \$6 billion in agricultural and food exports to the European Union.

Whether or not E.U. consumers will choose to avoid GM food remains to be seen, however. Whereas polls and studies have documented that a majority of E.U. consumers oppose GM food, it is not known just how much they are willing to pay for GM-free food. And pay they must, because avoiding the GM label will be costly. Some have naively assumed that, by requiring GM labeling, the burden of market segregation could be shifted onto the suppliers of the new GM products. This is not so, however. It is the suppliers of the traditional, GM-free food (the perceived "superior" good) that will have to undertake the costly segregation activities required to avoid commingling of ➡

GM and non-GM products at various production, marketing, processing, and distribution points. This will require moving away from the traditional (efficient and cheap) commodity-based trading system and moving toward a more expensive handling process characterized by identity preservation. The E.U. threshold level of 0.9 percent may indeed prove rather strict and difficult to achieve. U.S. operators are particularly concerned about the impact that the new rules will have on products that have, to date, been somewhat protected from the controversial E.U. stance on GM products. As noted earlier, soybeans had not been directly affected by the E.U. moratorium. But the new rules will now require GM labels for food containing soybean products, even for refined soybean oil, which had not been subject to such labels. The new E.U. regulation will also

apply to feed products, such as soybean meal and corn gluten feed, which constitute an important portion of U.S. agricultural exports to the European Union.

WHAT'S NEXT?

The United States and the European Union remain as divided as ever on the issue of GM products. The European Union views its new regulatory framework as addressing legitimate public concerns about the environmental and health effects of GM products. It claims that the new process will be transparent, non-discriminatory, and will help build public confidence in this new technology. The United States, on the other hand, perceives the new labeling and traceability requirements to be burdensome, impractical, and ultimately constituting an unwarranted restraint on trade.

The root of the disagreement is deeper, as the United States sees no

scientific basis for singling out GM products for special regulation. Indeed, it is quite clear that the new E.U. regulation is sending a mixed message to consumers. On the one hand, approved GM products supposedly have been found to be safe by the mandatory pre-approval risk assessment. On the other hand, mandatory GM labeling sends the "warning signal" to consumers that, after all, there may be something wrong (however undefined) with GM products. This continuing E.U. ambivalence about GM products reinforces the largely held view in the United States that the new E.U. labeling and traceability regulations contain unacceptable protectionist attributes that are inconsistent with the WTO agreement on technical barriers to trade. This may set the stage for a new, deeper WTO challenge to the E.U. policies on GM products. ♦

Recent CARD Publications

MATRIC BRIEFING PAPERS

Clemens, Roxanne. Meat Traceability and Consumer Assurance in Japan. September 2003. 03-MBP 5.

MATRIC RESEARCH PAPER

Lence, Sergio H., and Sanjeev Agarwal. Assessing the Feasibility of Processing and Marketing Niche Soy Oil. August 2003. (Revised). 03-MRP 6.

WORKING PAPERS

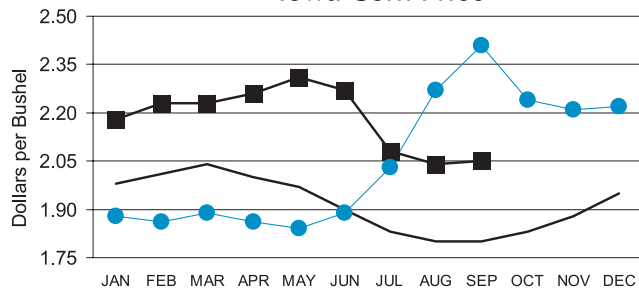
Herriges, Joseph A., Silvia Secchi, and Bruce A. Babcock. Living with Hogs in Iowa: The Impact of Livestock Facilities on Rural Residential Property Values. August 2003. 03-WP 342.

Tokgoz, Simla. R&D Spillovers in Agriculture: Results from a Trade Model. September 2003. 03-WP 344

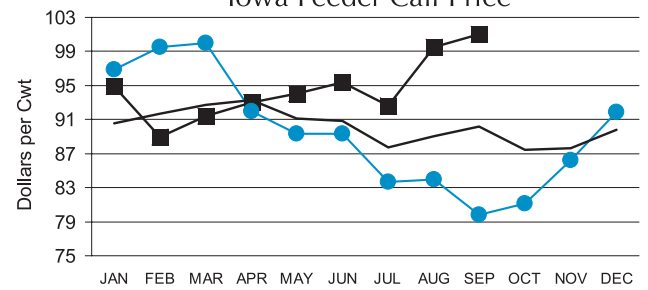
van der Mensbrugghe, Dominique, John C. Beghin, and Don Mitchell. Modeling Tariff Rate Quotas in a Global Context: The Case of Sugar Markets in OECD Countries. September 2003. 03-WP 343.

Zhao, Jinhua, Catherine L. Kling, and Lyubov A. Kurkalova. Alternative Green Payment Policies under Heterogeneity When Multiple Benefits Matter. August 2003. 03-WP 341.

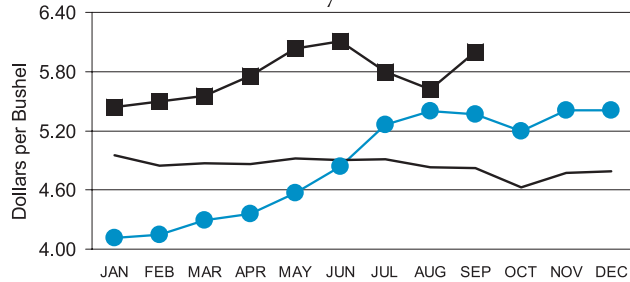
Iowa Corn Price



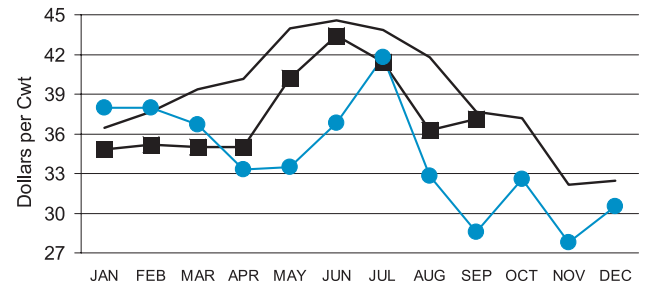
Iowa Feeder Calf Price



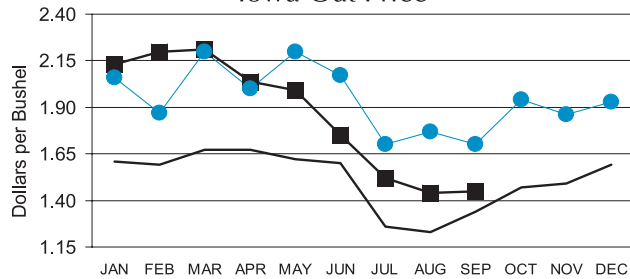
Iowa Soybean Price



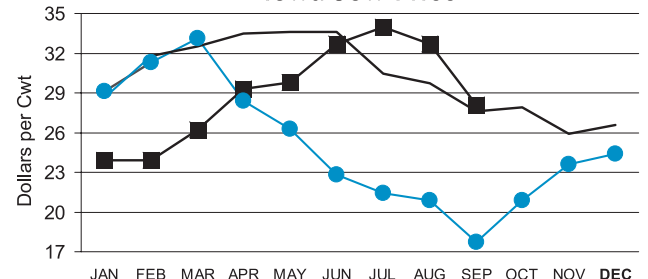
Iowa Barrow and Gilt Price



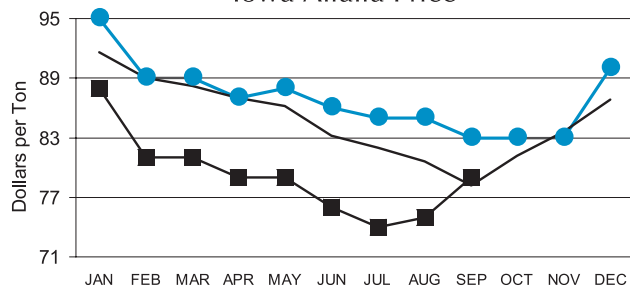
Iowa Oat Price



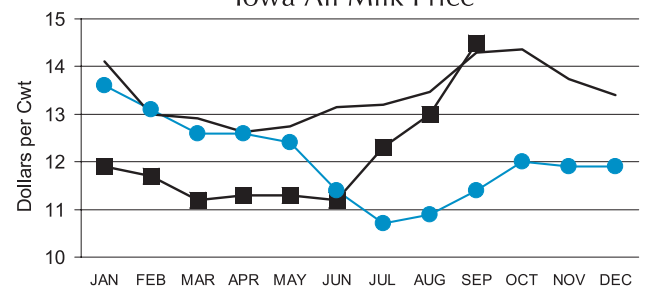
Iowa Sow Price



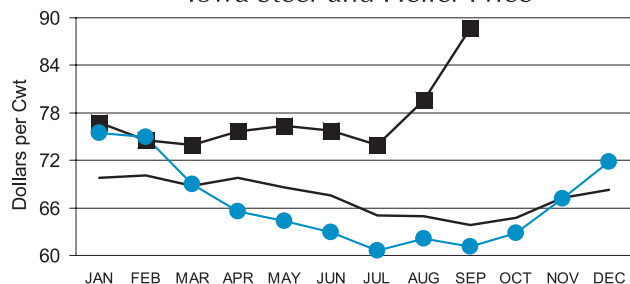
Iowa Alfalfa Price



Iowa All Milk Price



Iowa Steer and Heifer Price



■ 2003 ● 2002 — Avg 98-02

PRESORTED
STANDARD
U.S. POSTAGE PAID
AMES, IA
PERMIT NO. 200